United States Department of Agriculture
Natural Resources Conservation Service

Notice of Release of Martin Eastern Gamagrass Selected Class of Natural Germplasm

The Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture announces the release of a selected ecotype of eastern gamagrass (*Tripsacum dactyloides* L.) for the State of Florida and portions of the southeastern region.

As a selected release this plant will be referred to as Martin Germplasm eastern gamagrass to document its original collection location. It has been assigned the NRCS accession number 9056069. Martin Germplasm is released as a selected class of native vegetative plant material.

This alternative release procedure is justified because the demand for native Florida plants is high and the existing commercial sources of gamagrass are inadequate.

Collection Site Information: Martin Germplasm was originally collected vegetatively by NRCS employee Daniel Stankey October 28,1989 on Highway 710, 1.5 miles south of Indiantown and 0.4 miles south of Highway 76 (Latitude 27° 1' North, Longitude 80° 31' West). Collection site was a cabbage palm hammock in MLRA 155, with a southern exposure and slope of 2%. Precipitation in area averages 58 inches per year.

Description: Martin Germplasm is a robust warm-season, perennial grass with thick knotty rhizomes. Leaves often arch when they are mature and are blue-green in color. Stems are dark purple. Flat lance-shaped leaves have a pronounced midrib and scabrous margins. (Average base width in initial evaluation trials at the FLPMC was 15 inches, height 47 inches and canopy 28 inches.) Seed stalks average 5-6 feet and produce an average of 5 seed per spike. Seed from this accession matured earlier than other eastern gamagrass under evaluation at the FLPMC. Martin is a diploid 2n=2x=36 and will outcross, producing offspring without the blue-green color. Therefore vegetative propagation is necessary in order to insure the blue-green color is maintained.

Method of Selection: Initial evaluations of 114 accessions of eastern gamagrass began in 1990. Collections were from sites throughout the state of Florida and 36 accessions from the Kansas Plant Materials Center. Among the collections, plant shape, form and color varied from many leafed with leaves reflexed downward to erect-shaped plants; colors were yellowish-green, green to dark green and a few were blue-green. Martin was selected for its blue-green color, wider leaf, growth habit and ability of the foliage to maintain its blue color despite light frosting. During initial evaluations at the FLPMC it has maintained good vigor and uniformity. Survival has been 50% on both dry and wet sites.

Environmental Impact Assessment: Martin Germplasm eastern gamagrass is a selection of naturally occurring germplasm and has been unaltered from its original collection. Martin Germplasm did not meet the assessment of a plant that could become invasive based on guidelines adapted by the ***NRCS*** Plant Materials Program.

Anticipated Conservation Use: Selected for use as an ornamental landscape plant in xeriscapes and for use in buffer strips.

Anticipated Area of Adaptation: Eastern gamagrass prefers moist, well-drained fertile soils in full sun or partial shade. It tolerates a wide range of soil conditions, from sand to clay (as long as moisture is sufficient) (Greenlee, 1992). Martin Germplasm, though drought-tolerant once established, resents drying out completely. Initial evaluations indicate it is adaptable to USDA Hardiness Zone 8 to 10, however it will not survive freezing temperatures for extended period of time.

Availability of Plant Materials: Vegetative propagules will be maintained at the USDA NRCS Plant Materials Center in Brooksville, Florida, and are available in limited quantities to interested parties for increase purposes.

References:

Greenlee, J., 1992. The Encyclopedia of Ornamental Grasses. Rodale Press, Emmaus, PA. p.163.

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Signatures for release of:

Martin Germplasm Eastern gamagrass (*Tripsacum dactyloides* L.)

T. Niles Glasgow
State Conservationist
United States Department of Agriculture
Natural Resources Conservation Service
Gainesville, Florida

2/10/00
Date

for Diane E. Gelburd
Director Ecological Sciences Division
United States Department of Agriculture
Natural Resources Conservation Service
Washington, D.C.

3/23/00
Date